

Appendix 1: Clean copy of substitute amended claims

9. (Three Times Amended) An isolated, purified, or enriched nucleic acid sequence at least 90 nucleotides in length, wherein said sequence is at least 95% identical to at least a portion of a bacteriophage 77 open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID NO: 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9) sequence.

12. (Twice Amended) A recombinant expression vector comprising a nucleic acid sequence at least 24 nucleotides in length at least 95% identical to a portion of bacteriophage 77 open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID NO: 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9).

13. (Twice Amended) A recombinant cell comprising an expression vector, wherein said vector comprises a nucleic acid sequence at least 24 nucleotides in length at least 95% identical to at least a portion of bacteriophage 77 open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID NO: 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9).

14. (Amended) The cell of claim 13, wherein expression of said nucleic acid sequence is inducible.

39. (Amended) The nucleic acid sequence of claim 9, wherein said nucleic acid sequence is at least 120 nucleotides in length.

47. (Amended) The nucleic acid sequence of claim 73, wherein said sequence includes the complete coding sequence of said open reading frame.

48. (Amended) An isolated, purified, or enriched nucleic acid sequence at least 90 nucleotides in length, wherein said sequence encodes a portion at least 30 amino acids in length of a polypeptide encoded by a bacteriophage 77 open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID NO: 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9).

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55. (Amended) An isolated, purified, or enriched nucleic acid sequence comprising a sequence at least 90 nucleotides in length homologous to an equal length portion of the sequence corresponding to SEQ ID NO: 10, wherein said sequence at least 90 nucleotides in length has at least 95% sequence identity to said portion.

56. (Amended) The sequence of claim 55, wherein said sequence at least 90 nucleotides in length has at least 97% sequence identity.

59. (Twice Amended) The sequence of claim 58, wherein said open reading frame is open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID NO: 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9).

60. (Amended) The sequence of claim 56, wherein said sequence encodes all or a portion at least 50 amino acids in length of a functional homolog of an open reading frame product of bacteriophage 77.

61. (Twice Amended) The sequence of claim 60, wherein said open reading frame is open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID NO: 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9).

62. (Amended) The sequence of claim 56, wherein said sequence encodes all or a portion at least 30 amino acids in length of a functional homolog of an open reading frame product of bacteriophage 77.

63. (Twice Amended) The sequence of claim 62, wherein said open reading frame is open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID NO: 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9).

64. (Amended) An isolated, purified, or enriched nucleic acid, wherein said sequence is at least 95% identical to all or a portion at least 90 nucleotides in length of the sequence of SEQ ID NO: 10.

68. (Amended) The nucleic acid sequence of claim 64, wherein said sequence is at least 95% identical to a portion at least 150 nucleotides in length.

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69. (Amended) The nucleic acid sequence of claim 64, wherein said portion at least 90 nucleotides in length is all or a portion of an open reading frame.

73. (New) An isolated, purified, or enriched nucleic acid sequence comprising a sequence at least 45 nucleotides in length that is at least 95% identical to at least a portion of a bacteriophage 77 open reading frame 17 (SEQ ID NO: 4), 19 (SEQ ID NO: 5), 43 (SEQ ID NO: 6), 102 (SEQ ID : 7), 104 (SEQ ID NO: 8), or 182 (SEQ ID NO: 9) sequence., wherein said nucleic acid sequence encodes a polypeptide which provides a bacteria-inhibiting function.

74. (New) The vector of claim 72, wherein said expression is inducible using arsenite inducible operator and promoter.

75. (New) The cell of claim 13, wherein expression from said nucleic acid sequence in said expression vector is inducible.

76. (New) The cell of claim 75, wherein said expression is inducible using arsenite inducible operator and promoter.